Review Test Submission: Quiz 9.4

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Course	Intro to Control Systems - Fall 2020 Section Group I67
Test	Quiz 9.4
Started	11/17/20 10:52 AM
Submitted	11/17/20 11:07 AM
Status	Completed
Attempt Score	4 out of 4 points
Time Elapsed	15 minutes
Results Displayed	All Answers, Submitted Answers, Incorrectly Answered Questions

Question 1

1 out of 1 points

Which of the following describes gain margin?

Selected Answer: The multiplicative increase in K required to destabilize the system.

Answers:

The factor by which the gain K would need to be reduced to destabilize the system.

The additive increase in K required to destabilize the system.

The multiplicative increase in K required to destabilize the system.

Question 2

1 out of 1 points

Phase margin is...

Selected Answer:

The phase minus 180°, evaluated at the frequency at which the gain is 0 dB.

Answers:

The phase evaluated at the frequency at which the gain is 0 dB.

The phase minus 180°, evaluated at the frequency at which the gain is 0 dB.

The frequency at which the phase is 180°.

The frequency at which the phase is $$180^\

Question 3

1 out of 1 points

True or false? The Bode diagram of the open-loop transfer function $G(s)$ can be used to determine stability of the negative unity feedback system $\frac{KG(s)}{1+KG(s)}$.

Selected Answer: True

Answers: True

False

Question 4

1 out of 1 points

For stability, gain margin and phase margin must satisfy

Selected Answer:

Both $G_M > 0$ and $\Phi_M > 0$

Answers:

Both $G_M > 0$ and $\Phi_M > 0$

Either $G_M > 0$ or $\Phi_M > 0$

Both $G_M < 0$ and $\Phi_M < 0$

Either $G_M < 0$ or $\Phi_M < 0$

Tuesday, November 17, 2020 11:07:56 AM MST

← OK